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No. 205

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MASS POLIO IMMUNIZATION CAMPAIGN UNDERWAY

Bridgetown ADVOCATE-NEWS in English 27 Sep 80 p 2

[Text]

An island-wide mass polio immunisation campaign, jointly organised by the ministries of health and education, starts in Barbados on October 7.

The campaign, which is held every three years is specifically designed to immunise every child between three months and 15 years of age against polio (poliomyelitis).

It will run for about four months and it is expected that over 60 000 children will be immunised.

During this time all children between three months and 15 years attending schools, day nurseries and children's homes will be vaccinated against polio. The vaccination will be given by mouth in three doses with a lump of sugar.

For the purpose of the campaign the island will be divided into three areas: the north, the south and the City. The campaign will begin in the southern area when the first dose will be given on October 7 and 8.

The following week it moves on to the city area for three days — October 14, 15 and 16. The next week it goes to the Northern area on October 21 and 22. After a few weeks this will be repeated, that is, two days in the South, three days in the City and two in the north. Then after another break of a feww weeks the third dose will be given.

A list of all immunisation centres, where children can be taken to receive their polio vaccines, will be published and broadcast shortly.

Polio is primarily a disease of children. It affects the nervous system and can be fatal. When it does not kill it can lead to severe and lifelong crippling paralysis.

Protection is easily and painlessly acquired by vaccination. (GIS)

CSO: 5400

STUDY ON CONTROLLING VENEREAL DISEASES IN COUNTRY REPORTED

Havana REVISTA CUBANA DE HIGIENE Y EPIDEMIOLOGIA in Spanish Jan-Apr 80
pp 81-94

[Article by Dr Ronald K. St. John, adviser to PAHO (Pan American Health Organization)-WHO on venereal diseases (13-25 November 1978): "Control of Syphilis and Gonorrhea in Cuba"]

[Text] At the request of the Ministry of Public Health of the Republic of Cuba, the author, Dr Ronald K. St. John, deputy director of the Division of Disease Control (CDC), went to Havana, Cuba, as a short-term adviser to the Pan American Health Organization in order to make a study of the venereal disease control program and make recommendations for future actions. The study was made from 13 to 25 November 1978. The travel itinerary is attached hereto. The author especially wishes to thank Dr Leonardo Werthein, Dr Alfredo Abreu and Dr Olenia Hernandez for their assistance, frankness and inexhaustible patience. Without their support, it would not have been possible to prepare this report.

The author hopes that any errors found in this report will be of minor importance. They might be attributed to the relatively short time available to make the study and perhaps to certain difficulties in communicating subtle aspects of the country's health care system and activities relating to the control of venereal diseases.

Background

Health care system: It is essential to make a brief analysis of the health care system in Cuba in order to understand activities relating to the control of syphilis and gonorrhea. Over the past 20 years, Cuba has developed an overall system of basic health care based on a network of outpatient clinics for the people, with hospitals providing secondary and tertiary health care and specialized services for the referral of patients. An important role is played by preventive medicine, with special attention to neonatal and infant mortality. Health care services cover nearly 100 percent of the population and there has been an effective reduction in infant mortality, the incidence of preventable infectious diseases in children and the prevention of malnutrition.

The first level of primary health care is the outpatient clinic. Every outpatient clinic takes care of 30,000 people or less and has a staff of internists, pediatricians, obstetrician-gynecologists and odontologists so that it has available a specialist for a specific number of persons, for example, 1 pediatrician for 1,000 children and 1 obstetrician-gynecologist for 2,000 to 2,500 women. In this way, the staff at every outpatient clinic varies depending on the makeup of the population involved. Each clinic has auxiliary services: a statistical department, X-ray, nursing services, psychology, environmental health and a small laboratory where common analyses of hematology, urinalysis and general blood tests are done. It also performs certain serologic tests such as the VDRL [Venereal Disease Research Laboratories], but very few bacteriologic services are available at this level and those available are not always complete.

Each outpatient clinic is in close touch with community affairs and interrelates with the people. The medical group provides all basic care and refers patients to nearby hospitals for secondary and tertiary care when more complicated attention is required. For example, prenatal care is provided by obstetrician-gynecolosits at the outpatient clinic, but the delivery takes place at a nearby specialized (obstetrics-gynecology) hospital. Prenatal care for women with high-risk pregnancies is generally provided at one of these hospitals.

Patients may freely seek emergency attention at emergency rooms of local secondary-care hospitals or at any one of the clinics that provide emergency services after regular hours. Patients who go to emergency rooms may or may not receive treatment, depending on their disease.

Each outpatient clinic has a detailed data base oriented toward epidemiology in order to determine the state of health of the people being cared for. The clinic is in charge of making and updating the census of its population.

Outpatient clinics are supervised by the municipality where they are located and every municipality is in turn supervised by the province (equivalent to a state).

Physicians may request consultations with a specialist, for example, with a dermatologist, otorhinolaryngologist, oncologist, and so on. In general, the specialist meets with the patient during visits with the doctor at the clinic. Specialized clinics are located only at specialized hospitals, for example, pediatrics and gynecology-obstetrics. There are no single-purpose clinics such as for venereal diseases, family planning, hypertension, tuberculosis, and so on.

Control of syphilis and gonorrhea is completely incorporated into the general health care system. The same group procedure used for general basic care is applied to patients with syphilis or gonorrhea. The doctor in charge of basic care makes the diagnosis in consultation with a dermatologist and a registered nurse specially trained to be an interviewer and

tracker of contacts. Every outpatient clinic (or group of clinics) has a nurse-interviewer to locate contacts.

Syphilis Control Program

In 1962, a national program for the control of syphilis was initiated.[1] Criteria for diagnosis were determined, free attention was provided and an improvement was made in reporting cases. Nevertheless, the coverage provided by health care services for people exposed was inadequate. Laboratory support work varied greatly and epidemiological techniques and the search for contacts were not effective. In 1972, the program was examined at the First National Seminar on Epidemiology and the Control of Venereal Diseases and general outlines were drawn up. The VDRL smear test was reported and determined to be the only serological proof for detection of syphilis. Nurse-interviewers were trained and assigned to different places in the health care system. In the absence of serologic tests confirming the presence of Treponema, the definition of a patient with latent syphilis was given as any asymptomatic person with a reaction to the VDRL and a clinical history of a typical syphilitic lesion (in other words, primary or secondary syphilis) or epidemiological proof confirming exposure.[2] Early latent syphilis was defined as latent syphilis with a duration of less than 2 year.

The following table summarizes the trend of the incidence of syphilis in different phases from 1960 to 1973:

Cases of Syphilis and Rates per 100,000 Inhabitants 1960-1973

	Prim., Sec., Early Latent		Lat. and Late Latent		Total	
Year	Cases	Rate	Cases	Rate	Cases	Rate
1960	296	3.6	287	3.5	590	7.1
1970	440	5.3	166	2.0	619	7.3
1971	757	8.8	212	2.4	969	11.2
1972	1,757	20.0	389	4.6	2,151	24.6
1973	3,585	40.5	832	9.0	4,417	49.6

Source: Reference 1

The spectacular increases in 1972 and 1973 reflect an improvement in detection, definition and the reporting of cases.

In 1973, 46.4 percent of the 3,585 cases of early syphilis detected were symptomatic (primary and secondary syphilis). In the initial phases of the new program, thanks to the detection of contacts, 35.7 percent of the new cases of early syphilis were diagnosed. In 1973, this percentage rose to 50.3 percent.[3]

Special attention was given to proper treatment of all cases diagnosed and to contacts with positive VDRL results for early syphilis, with a total dose of 6.0 megaunits (mu) of benzathine penicillin G (in doses divided as follows: 2.4 mu initially, followed by 1.2 mu on the 4th, 7th and 10th days). Pregnant women whose VDRL reaction was positive were also treated. More VDRL tests were administered in order to examine all pregnant women (two serological tests per pregnancy), blood donors, patients admitted to hospitals, military personnel, persons subject to periodic health examinations and special vulnerable groups (prisoners, persons seeking advice on birth control, women having abortions). Patients treated are observed for 2 years by means of serological tests performed the 1st, 3rd, 9th, 12th, 18th and 24th months. Great emphasis was placed on the prevention of congenital syphilis by means of extensive serological testing and treatment in the form already indicated. In addition, there was an investigation of spontaneous abortions and intrauterine deaths and cases of congenital syphilis were observed. In one study, Dr Hernandez et al[4] studied 94 cases of syphilis in pregnant women in Havana in 1973. In 89 cases, early syphilis was diagnosed, including 38 cases of primary or secondary syphilis. The prenatal serological examinations represented 70.2 percent of the cases, while 37.3 percent of the cases in mothers were diagnosed during the first 3 months, 40.4 percent in the second 3 months and 10.6 percent during the last 3 months. The period when the diagnosis was made was unknown in 11.7 percent of the women. In this group, the result of the pregnancies was three abortions, four premature births, 87 normal babies and one baby with congenital syphilis, born to a mother who was allergic to penicillin and who did not complete the oral treatment.

In the following 3 years (1974-1977), congenital syphilis dropped by 50 percent. At the present time, there are very few cases of the disease.

In June 1977, the program was once again examined during the Second National Seminar on Epidemiology and the Control of Venereal Diseases.[5] Greater use of the ATF-ABS [aluorescent treponemic antibodies] test was proposed, emphasis was placed on the importance of epidemiological analysis and integration of the program in the outpatient clinics was reaffirmed.

Program for Control of Gonorrhea

At the present time, there is no official program for the control of gonorrhea, but plans have been made to organize a program making it possible to measure the increase in gonorrhea and reduce its morbidity. Very few data are available and due to the nearly absolute lack of culture media, very little is known about the incidence of gonococcal infections in women. In the gynecology clinics of the obstetrics-gynecology hospitals, gonococcal complications are frequently observed, such as inflammation of the pelvis, but there is no systematic compilation of data about its incidence. Only a few data are available:

Year	Cases of Gonorrhea Reported	Year	Cases of Gonorrhea Reported
1965	697	1975	4,385
1972	703	1976	6,229
1973	870	1977	8,239
1974	3,233		

Approximately 95 percent of all the cases of gonorrhea are found in men. An unknown percentage of those cases is diagnosed by means of Gram's method. Patients in whom positive results were obtained using that method are treated with a total dose of 14 million units of procaine penicillin G (1 million units twice a day for 7 days). Authorities admit that this is an excessive dose and when the gonorrhea control program is put into effect, changes will be made.

For the treatment of neonatal gonococcal ophthalmia, drops of silver nitrate or penicillin for the eye have been used; this problem is not seen.

Control of Syphilis: Observations and Recommendations, Clinical Aspects

The diagnosis of syphilis is made with great care. All patients with or without symptoms, contacts and companions are subjected to serological tests and quantitative VDRL tests. The laboratory service immediately notifies the doctor, who in turn consults with a dermatologist. As soon as the diagnosis is confirmed, treatment is initiated and the patient is interviewed. Darkfield microscopy is limited. Only at hospital laboratories does this service exist due to the fact that darkfield condensers that can be adjusted to the many different types of microscopes in outpatient clinic laboratories are not available, and only rarely are cases of genital lesions seen at most outpatient clinics. Patients with suspicious lesions are sent to the hospital for examination by darkfield microscopy. Since approximately 15 percent of the cases of early syphilis involve primary syphilis, if darkfield microscopy is used more at outpatient clinics where cases of genital ulcers are taken care of, diagnosis and treatment will be faster.

At certain hospital laboratories, the ATF-ABS test is used to confirm the disease. As a result, asymptomatic patients and contacts with a positive reaction to the VDRL are treated with the first dose of benzathine penicillin G. If during the examination -- that is, during the interview and consultation with the dermatologist -- it is determined that the patient has a positive clinical history or if there is proof that the patient was exposed to the infection, as shown by the epidemiological study or the search for contacts, a definitive diagnosis of early latent syphilis is made and the treatment with penicillin is continued until the plan of 6.0 mu is completed. If these criteria are not met, the report on the case is not complete and treatment is discontinued. In these cases and in pregnant women with positive serological results, the use of the ATF-ABS reaction to confirm the disease will make it possible to clarify the diagnosis more

rapidly and will lead to faster epidemiological intervention. The method of group work for the diagnosis and treatment makes it possible to provide high-quality care. Very few patients who seek care fail to receive proper diagnosis or proper care.

Based on a thorough study of five medical histories and conversations with doctors and nurses acting as interviewers, the consultant came to the conclusion that the method of group work sometimes delays the final diagnosis and treatment. The patient is in no way affected by these delays with respect to final results because the follow-up at the outpatient clinic is very complete. However, from the standpoint of controlling the disease, delays could reduce the effectiveness of activities aimed at halting transmission of the disease by patients or their contacts.

The doses of penicillin used to treat syphilis are adequate for curing and preventing later complications. Patients allergic to penicillin who have syphilis are hospitalized and treated by oral means while under direct observation. Those with congenital syphilis receive proper doses of procaine penicillin G. The use of benzathine penicillin is being discontinued for the treatment of congenital syphilis, as is that of tetracycline for pregnant patients allergic to penicillin.

Recommendations

1 -- The criteria for diagnosis now being applied and plans of treatment are adequate and there is no need to change them.

2 -- Under the current system, there should be an attempt to reduce delays that could affect disease control activities. Regular analyses of common cases should be made at the local level in order to identify methods making it possible to reduce the time between the patient's first visit and final diagnosis.

3 -- All positive VDRL results in patients who it is suspected suffer from latent syphilis should be confirmed by a treponemic test. Before trying to expand the use of the ATF-ABS reaction, the Ministry of Public Health and the National Institute of Hygiene, Epidemiology and Microbiology must investigate the cost, benefits and possibility of performing the microhemagglutination test with Treponema pallidum (MHA-TP). This test is less costly and not as complicated. It does not require complicated equipment.

4 -- A study should be made of the possibility of using darkfield microscopy more at outpatient clinics and hospitals where patients very vulnerable to syphilis are seen -- that is, within certain areas of metropolitan Havana. We repeat: The purpose is to reduce the time between initial consultation and the diagnosis and final treatment.

Epidemiological Aspects

Some 200 to 210 nurses were specially trained to track contacts of patients with syphilis. The nurses are assigned to outpatient clinics all over the country. Their duties include: the initial interview in order to gather data concerning contacts, suspicious carriers and partners, future treatment (four injections), serological tests (over a period of 24 months) and the exchange of epidemiological information. For every patient with syphilis interviewed, it is expected that data will be obtained on some ten contacts, suspicious carriers and partners (4, 2 and 4 respectively). At the present time, the national average is 5.1 contacts, suspicious carriers and partners for every patient interviewed.

Over 3 months of experience, one interviewer-nurse found:

Category	April	May	June	Total
Number of cases of early syphilis	8	2	2	12
Number of cases treated completely	8	2	2	12
Number of contacts identified	7	4	6	17
Number of contacts treated	7	4	4*	15
Number of identified suspects	3	3	3	9
Number of partners	3	9	9	21

*Two contacts were outside the area.

At the present time, the interview concentrates on identifying contacts, suspects and partners -- that is, "who it is" in tracking contacts. Importance is not given to the relation of time between the patient and contacts, the "when" question in tracking contacts. Consequently, there is no systematic analysis of cases by source of propagation. The analysis is hindered even further by the current methods of keeping records, for which the use of many books is required.

Due to the close cooperation between the dermatologist and the nurse-interviewer, patients are interviewed as soon as the diagnosis is made, generally, before it is completed.

There are certain major problems with respect to the exchange of information concerning the tracking of contacts outside municipal areas. Within the municipalities, the nurse-interviewer first of all sends epidemiological forms to the municipality or province where they are exchanged. The form then goes to the new nurse-interviewer. If possible, a more rapid method (such as telephone) is used).

The nurse-interviewer is supervised by another who has been promoted to the municipal level. Case study techniques and interview study techniques are not used. Other measurements of interviewing effectiveness are not being examined.

Recommendations

1 -- If possible, analytical capabilities should be developed in order to indentify the source of infection and propagation. The Venereal Disease Control Division of the CDC is willing to provide technical assistance in the form of the services of a high-level official who is an expert in epidemiology and contact tracking in order to train nurse-interviewers and their supervisors in techniques of case analysis and supervision now being used in the United States. Training would be more useful if it would be planned to coincide with courses for nurse-interviewers offered in the country.

2 -- There should be an exploration of methods to improve the exchange of information on the search for contacts. Nurse-interviewers should exchange information directly and send copies of information to higher levels. Such nurses could perhaps be provided with the names and addresses of their colleagues throughout the country in order to be able to send directly by mail the form for the report on the search for contacts when there is no telephone or more rapid method.

3 -- Consideration should be given to the establishment of a new medical records system permitting a thorough analysis of cases. When a patient is interviewed, a file in opened for all information corresponding to that case. An analogous system is now being used in the United States.

Serological Proof

Throughout the country, the VDRL test on slides is being used. Systematic tests are made of numerous groups to detect syphilis, even when such groups would have little exposure to the disease. There has been very little or no evaluation of the results of such tests. In 1974, Dr Werthein et al[6] analyzed the results of 159,212 serological tests in a specific zone. The percentage of positive results varied from .5 percent at some hospitals to 6.1 percent at certain outpatient clinics that were chosen. The serological tests required for health cards represented 46 percent of the total of 3,825 positive serological tests. Hospitals and general medical and surgical outpatient clinics represented 24.8 percent and 16.1 percent respectively. In analyzing 247 cases of early syphilis, it was observed that 45.1 percent of these cases were detected through serological tests. The tests required for health cards made it possible to identify 48 cases out of a total 662 (7.2 percent) with positive results and presented 43.2 percent (48/111) of all the cases identified by means of such tests. The tests made at outpatient clinics yielded positive results in 28 cases out of a total of 619 (4.5 percent) and represented 25.3 percent of the cases.

The VDRL test is carried out at laboratories located in the outpatient clinics and hospitals. In order to achieve greater effectiveness and improve the quality of tests, an attempt is being made to centralize the VDRL tests at hospital laboratories at the municipal or provincial level.

If a large number of tests is made, automated techniques could be applied. Tests are made one or more times a week, depending on volume.

Positive results are immediately reported. Reference serums for control purposes are prepared by the test laboratory itself and are tried before the customary tests. Such serums are prepared by combining reaction serums, which are sent to provincial laboratories for titration. The titrated serum is sent back to the local laboratory. At provincial laboratories, the test procedures of local laboratories are periodically examined.

During a visit to Fajardo Hospital, the consultant observed the procedure used in the VDRL test. The hospital is the reference center for new outpatient clinics. The VDRL test has been centralized at one of the new outpatient laboratories. These laboratories send tests that gave a weak positive result and 5 percent of the negative results to the Fajardo Hospital laboratory for quality control. This laboratory also does the VDRL tests for all hospitalized and ambulatory patients. It also does ATF-ABS tests with appropriate controls in cases of diagnostic difficulties. However, it does not participate in an outside quality control program to control the quality of its own tests.

All serological tests with weak positive results are quantified in order to eliminate prozonal reactions. At most outpatient clinic laboratories, slides with concavities are used, while at hospital and reference laboratories, plates with paraffin are used. Modern equipment is used at all laboratories: water bath, rotators, and so on. The consultant was very impressed with the success of the congenital syphilis control program. Approximately 100 percent of all pregnant women are subjected to two serological tests as a minimum during the prenatal care period. For want of confirmatory proof, the vigorous treatment is justified. Subsequent observation of patients treated is adequate, but a more conservative method would involve the completion of serological tests every month for the purpose of observing treated patients in order to ascertain whether there is an adequate serological response making it possible to guarantee the detection of a later reinfection during the pregnancy.

Recommendations

1 -- The consultant agrees with the current plans for centralizing VDRL tests. Testing in large quantities would make it possible to complete tests daily, thereby reducing delays between the obtention of the blood sample and the reporting of results. The use of the automatized reagent test could further improve effectiveness. This reaction is technically absorbent. Equipment breakdowns are relatively common and spare parts must be kept on hand.

2 -- Centralized serological tests usually require more complicated records in order to facilitate the rapid working out of test results. The flow of samples going through the laboratories analyzing large volumes of such samples must be watched to detect excessive delays in reporting results.

3 -- It is necessary to expand internal and external quality control systems so as to include all laboratories performing VDRL or ATF-ABS tests. Serum samples whose positive reactions are known should be sent without identification to the test laboratory. The nurse-interviewer can serve as an intermediary receiving the serum for the test, identifying it with a fictitious name and sending it through customary channels to the test laboratory.

4 -- The CDC welcomes the participation of laboratories of the National Institute of Hygiene, Epidemiology and Microbiology in the international outside quality control program.

5 -- Laboratories of the National Institute of Hygiene, Epidemiology and Microbiology or another appropriate laboratory should coordinate all outside quality control programs and quality control of tests. The centralized control would make it possible to produce well-defined control serums for daily use in the laboratories that do the VDRL test.

6 -- An expert in serological tests from a competent laboratory should be available to go to the CDC to study the current procedures used in serological testing and outside quality control programs. With this study, the application of quality control techniques in Cuba would be facilitated.

Statistics and Reporting System

The little time available prevented the completion of an extensive study of current or proposed reporting systems. Consequently, no important recommendations can be formulated.

All cases diagnosed are immediately reported and sent to the municipal, provincial and national levels. In addition, at the municipal level, 21 tables are completed, which are added to the national level for the completion of epidemiological analyses.

The reporting system is also used as a confirmation system for supervising the work of the nurse-interviewer, dermatologists and doctors in the outpatient clinics under the municipal level.

There are currently systems for the collection of data in the CDC for comparative purposes. Cuba's system was redesigned and will be set up shortly. In the future, it will be necessary to reexamine the usefulness of the proposed forms.

Control of Gonorrhea: Observations and Recommendations

Although no structured program for the control of gonorrhea has been set up, the consultant studied the most recent plan to control the disease. In the course of numerous discussions, various aspects of importance and problems that must be solved were identified.

Treatment of Diagnosed Cases

No data were available to determine the level of resistance of gonococci in the country. No attempt was made to detect the presence of strains that produce beta lactam. It is recognized that the treatment now recommended is excessive (14 mu of procaine penicillin G) and new courses of treatment will be selected.

Recommendations

1 -- Until data is collected, the Ministry of Public Health should consider the possibility of accepting the revised treatment recommendations of the CDC for gonococcal infections, both complicated and uncomplicated.

2 -- Until the National Institute of Hygiene Epidemiology and Microbiology can develop the capacity to control resistance to antibiotics and beta lactam tests, the Venereal Disease Control Division of the CDC is available to determine the sensitivity of a limited number of strains to antibiotics (50 to 100).

Diagnostic Techniques

Patients with gonorrhea are diagnosed and treated at outpatient clinics and hospital emergency rooms of the second level. All outpatient clinics are equipped with excellent microscopes and the equipment needed to do stains using Gram's method. Stains of urethral secretions from males using Gram's method are sensitive and specifically for the diagnosis of gonorrhea. The consultant was not able to determine the degree to which this test is used in emergency rooms or outpatient clinics where very few men with urethral secretions are treated, that is, two or three a month.

The venereal disease control program in Cuba has specially avoided the use of endocervical *frotis* by means of Gram's method. When this test is cautiously interpreted, it constitutes a diagnosis of gonorrhea. The use of this test makes rapid identification and treatment of the patient and contacts possible.

The existence of Thayer-Martin culture media for diagnostic or study purposes is extremely limited. When the country's culture capacity is improved, the use of such culture media should be closely examined. As planned, gonorrhea control activities will be integrated into the current outpatient clinic structure. In this way, patients with gonorrhea will be scattered over several clinics (approximately 70 in Havana alone). Cultures at clinics will be costly due to the low expected production and cannot be recommended. The use of cultures in services of an area of specialization such as in outpatient gynecology clinics or obstetrics-gynecology clinics will make it possible, however, to identify a larger number of gonorrhea infections, not only in symptomatic women and women with pelvic inflammations, but also in asymptomatic women (50 to 80 percent of all infected women), if the

latter are included. The consultant was not able to determine whether hospital emergency rooms treat many symptomatic women, but it is known that such rooms do treat men with gonorrhea with some frequency.

Decisions must be made about the production, distribution and quality control of culture media. It is necessary to establish standards for the use of cultures for diagnostic purposes and subsequent observation and not for disease control. It is necessary to standardize and supervise sample obtention techniques. The means by which cultures are taken to laboratories must be set up.

Recommendations

1 -- At all outpatient clinics and emergency rooms, the preparation of *frotis* using Gram's method for samples from men with urethral secretions must be initiated. In men with a history of urethral secretions, the sample should be obtained from the anterior ureter with a bacteriologic instrument or cotton tipped swab.

2 -- At all outpatient clinics, emergency rooms and special clinics, endocervical *frotis* should be made using Gram's method for samples from women undergoing pelvic examinations. A cautious interpretation of the *frotis* must be made (that is, the presence of intracellular, gram-negative, typical diplococcus in the leucocytes). It will be necessary to train laboratory technicians. There are publications recommending the use of *frotis* by means of Gram's method in women.

3 -- In the beginning, the analysis of cultures should only be made at hospitals and clinics of an area of specialization, as in the case of obstetrics-gynecology, where laboratories are easily available and no messenger-mail systems are needed. The following aspects must be considered:

a -- Cultures must be inoculated the moment the examination is made.

b -- Cultures must be placed in an incubator in an atmosphere of carbon dioxide as soon as possible.

Inexpensive incubators and covered jars generally make incubation possible where the examination is conducted until the laboratory can gather the cultures from each day. In this way, all cultures must be available for the initial interpretation on the afternoon of the day following their preparation and for final reading on the afternoon of the second day (48 hours).

c -- An examination must be made of patients with positive cultures and with inflammation of the pelvis giving a positive reading in order to try to identify population groups with a relatively high rate of gonorrhea. Subsequently, the examination of cultures should extend to the clinics handling these high-risk groups.

d -- If, in the emergency rooms, many symptomatic women are seen, then the cultures must be prepared there in order to detect gonorrhea. Outpatient clinics should also try to identify high-risk groups in which systematic cultures yield 4-6 percent positive results.

e -- In all women treated for gonorrhea, a culture should be made for purposes of confirmation, whenever possible, 3 to 5 days after the last dose of antibiotics was administered in order to ensure that the infection was cured. This makes it possible to determine the efficacy of treatment. It would also be useful to obtain another confirmation culture 4 to 6 weeks after treatment in order to detect reinfection, perhaps through asymptomatic male contacts not treated.

f -- As the use of cultures expands, cultures should also be made from samples taken from women yielding positive results with Gram's stain, from contacts with gonorrhea and from men with a urethral secretion whose Gram stain is negative (in 5 percent of the cases, the cultures will be positive).

4 -- In order to maintain the quality of the culture media, centralized services must be set up for the production of cultures at the National Institute of Hygiene, Epidemiology and Microbiology and other suitable laboratories. Quality control techniques must be applied to every lot before it is distributed to places where it will be used. In these places, cultures should be made periodically from samples taken from men with a positive Gram stain as a quality control measure. A minimum of 95 percent of all men who are gram-positive should yield positive results. In approximately 50 percent of the women having contact with men suffering from gonorrhea, the cultures should be positive.

5 -- Before undertaking the production of culture media and culture control, a competent Cuban microbiologist should consult with the CDC in order to study basic bacteriological techniques for the isolation of gonococci, quality control systems, the production of culture media and sensitivity tests to antibiotics.

Epidemiological Aspects

Current plans recommend that nurse-interviewers conduct thorough interviews with all positive cases of gonorrhea. The program anticipates the treatment of 10,000 to 20,000 cases a year and it would perhaps not be possible to make thorough interviews. Based on experience in the United States, in interviews with women suffering frequently from gonorrhea without complications, they mention contacts that have already had symptoms and that were treated. Moreover, interviews with women having repeated pelvic inflammations and repeated infections might lead to the detection of asymptomatic infected male contacts.

Recommendations

1 -- Consideration should be given to interviewing techniques to take the place of those traditionally used. There are examples of other methods in which the patient refers his contact to a reference service.

2 -- Studies should be made of results of traditional techniques in specially selected groups such as women with pelvic inflammations.

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11,464
CSO: 3010

SWARMS OF MOSQUITOS THREATEN MALARIA OUTBREAK

Bissau NO PINTCHA in Portuguese 17 Aug 80 p 8

[Excerpts] It is no exaggeration. We must in fact know whether this invasion of mosquitos reported in Bissau is a plague. Mosquitos are attacking everywhere: in restrooms, offices, kitchens, bath houses, back yards and streets. It is happening from morning to night.

What will become of us if the situation worsens in the next few months, this land bathed in rivers, swamps and pools, which constitute genuine "factories" of mosquitos of all species? We are well aware that mosquitos are transmitters of many diseases, especially malaria. The situation prevailing in our hospitals is obvious proof of a plague of mosquitos. There are so many mosquitos that antimalarial measures are no longer preventing us from having to go to the hospital where, in most instances, there is no other alternative than to be confined.

We are taking so many antimalarial medicines that they are disturbing our system, and this is aggravated by a lack of proper food which, naturally, does not alleviate the side effects caused by the remedies we are using in the treatment.

What measures can then be taken? The Department of Hygiene and Combat of Major Epidemics had a vehicle with a sprayer to combat such insects in the city. What has happened to it? Could it be perhaps preferable to introduce or publicize the use of the mosquito net, which we call "tent"? The truth of the matter is that mosquitos also attack in the daytime, and we cannot walk around in the streets carrying "tents" or place them in the restroom. In that case, insecticides, sold in pharmacies, can be a recourse. But insecticides are very expensive and, moreover, are imported in small quantity.

And if we created brigades to combat the mosquitos with flyswatters, how many people would we need just for the billions of mosquitos proliferating in the Bissau neighborhoods? All living creatures have a tendency to adapt themselves to the adverse conditions of life. Mosquitos are not an exception as they are already resisting "Lion Brand" and certain insecticides.

In the last analysis, the correct answer should be given by qualified health organizations, since we cannot continue forever to take pills. It is necessary to eliminate malaria by fighting the transmitting agents.

8568
CSO: 5400

BRIEFS

INCIDENCE OF JAUNDICE--New Delhi, August 3 (UNI)--The incidence of deaths due to jaundice rose by more than 50 per cent between 1977 and 1979, an analysis of preliminary data indicates. The disease took more than 2,300 lives last year against 1,479 in 1977, according to figures compiled by the Central bureau of health intelligence. That is "quite a jump," said doctors who have been handling jaundice and other enteric disorders at the All-India Institute of Medical Sciences, New Delhi. According to Dr B. N. Tandon, head of the AIIMS's gastroenterology department, the jaundice virus has been striking more and more for the past few years. Reports received by the bureau so far suggest that jaundice incidence was higher in 16 states and Union territories in 1979 than in 1977 and lower in eight. The states and territories which registered lower incidence last year were Haryana, Karnataka, Kerala, Rajasthan, Tamil Nadu, Uttar Pradesh, Delhi and Lakshadweep. Those reporting higher incidence were Andhra Pradesh, Bihar, Himachal Pradesh, Madhya Pradesh, Maharashtra, Nagaland, Orissa, Punjab, Sikkim, Tripura, the Andaman and Nicobar Islands, Chandigarh, Dadra and Nagar Havelis, Goa, Mizoram and Pondicherry. Maharashtra was the worst affected with 40,465 people taking ill with jaundice in 1979 against 3,983 in 1977--a ten-fold increase. Deaths in the state more than doubled to 894 from 398 in 1977. [Text] [Bombay THE TIMES OF INDIA in English 4 Aug 80 p 21]

ENCEPHALITIS KILLS 80--New Delhi, 5 Oct--Encephalitis, a viral disease spread by mosquitoes, has killed 80 people in northern India in the past two weeks, the PRESS TRUST OF INDIA (PTI) reported today. The news agency quoted officials as saying over 300 people were suffering from the diseases in the eastern areas of Uttar Pradesh State, ravaged for three months by devastating floods. NAB/REUTER [Text] [Rangoon THE WORKING PEOPLE'S DAILY in English 7 Oct 80 p 6]

ENCEPHALITIS IN BIHAR--New Delhi, Oct. 5: An out break of encephalitis in east Champaran district of Bihar, in northeastern India, has claimed 21 lives during the last-five weeks, reports received here said yesterday, reports AFP. [as published] Quoting hospital sources in the affected district the reports said 61 persons were admitted to the hospital, 48 of them in serious condition. [Text] [Kathmandu THE RISING NEPAL in English 6 Oct 80 p 2]

ENCEPHALITIS CLAIMS 156--New Delhi, Oct. 6: Encephalitis has claimed 156 lives during the last fortnight in Gorakhpur, Deoria and Basti districts of north Indian Uttar Pradesh, PTI news agency reported today, says AFP. Ac rding to the agency 100 cases were reported from Deoria district and .he rest from Gorakhpur and Basti districts. Nearly 300 persons, mostly children, have been affected in these districts and had been treated at different hospitals, the report added. [Text] [Kathmandu THE RISING NEPAL in English 7 Oct 80 p 1]

CSO: 5400

TOXIC SUBSTANCE KILLS FISH OFF EASTERN COAST

Nassau THE TRIBUNE in English 17 Sep 80 p 4

[Text]

KINGSTON, JAMAICA, Sept 16 (CANA) – Some toxic substance is killing fish in the waters off Eastern Jamaica.

A similar occurence was reported last week in the Dominican Republic, East of Jamaica, where millions of fish died and a number of people reportedly were affected by food poisoning.

The Jamaica health ministry has warned east coast fishermen against landing dead or struggling fish, pending investigation.

"The Ministry of Agriculture has become aware of a large amount of dead fish in Morant Cays area" a release from the ministry said.

"There is the suspicion that this might have been caused by a current of toxic water flowing from the Eastern Caribbean."

The release said a team of scientists from the ministry's fisheries division and the National Resource Conservation Division (NRCD) – were aboard a coast guard vessel carrying out tests and investigations into the phenomenon.

Supermarket operators, the Agricultural Marketing Corporation, and fish vendors have also been asked to refrain from distributing fish caught in this area over the next two weeks.

The authorities are also making contact with other Caribbean countries which might have been affected, the statement said.

CSO: 5400

NATIONAL HEALTH COUNCIL SURVEY OF HEALTH SITUATION

Maputo TEMPO in Portuguese 21 Sep 80 pp 16-21

[Article by Antonio Marmelo: "Seventh National Coordinating Council Meeting"]

[Excerpts] The Seventh National Health Council Meeting was held from 1 to 8 September to analyze various areas of this sector in detail and discuss the implementation of its programs, emphasis being placed on trying to discover any obstacles and finding ways to overcome those obstacles.

This being a basic sector and also considering the extent of the work done by that council, we are sharing some of the information gathered in that meeting with our readers to apprise them somewhat of the current health situation in Mozambique.

Health Network To Be Expanded and Made More Adequate

It is estimated that 80 percent of the illnesses in Mozambique can be prevented and treated through the simple process of cleaning up the environment, preventive medicine and simple remedial action. In fact, in evaluating the extent of the health network throughout the country, we must frankly admit that it is inadequate to reach all our people. The situation is particularly serious in former liberated areas near the borders and in areas hardest hit by the war.

In addition to being insufficient, the current network, designed with other objectives in mind, does not permit rational use of the various levels of care obtainable at health facilities. There are large areas where the patient has access only to a clinic which treats simple diseases, provided even that is available. In other areas there are rural hospitals without any clinic, which causes the hospitals to be overcrowded, with the obvious results.

In Mozambique there are 3 central hospitals, 7 provincial hospitals, 4 general hospitals, 4 specialized hospitals, 22 rural hospitals, 265

health centers and 628 clinics, and there are plans to build 200 more health facilities by 1982 bringing the country's average coverage per health facility to 11,680 inhabitants in an average radius of 15.3 km. In 1979, these averages were 13,514 inhabitants and 16.9 km respectively.

Meanwhile, extending the health network to more remote areas of the country is considerably more complicated than merely constructing more health centers or clinics. There are problems of roads, transportation, equipment and staffs to be relocated which do not present any viable solutions over the short term.

But human and material resources will be provided for the country's areas which need better health facilities. In 1981, 58 medical specialists will be engaged and 25 general clinics will be added. On the domestic level about 20 doctors are completing their training, and in 1981 courses will be completed by about 250 medical technicians, nurses, midwives and miscellaneous health personnel who are currently attending institutions of science and health in Maputo, Quelimane and Nampula. We now have 331 doctors, of whom only 81 are Mozambicans, and of these only 15 have any medical speciality.

Vaccination of the people, especially children and pregnant women, is one of the principal concerns of the preventive medicine sector.

The expanded vaccination program (PAV) was successful, as already mentioned, but there were also inadequacies which are worth analyzing. With reference to the Central State Plan, the following vaccination program is to be carried out on the national level: measles, 63 percent; BCG, tuberculosis, 34 percent; tetanus, 32 percent; and polio and DTP, combination diphtheria, tetanus and whooping cough, 55 percent. Difficulties showed up particularly in the incorrect use of cooling facilities, the lack of fuel both for the freezers and vehicles, irregular distribution of the vaccines to the provinces and inadequate communication with community organizations.

For 1981 the program calls for the vaccination of the following:

Against measles, 60 percent of children born in 1980 and 1981;

Against tuberculosis, 60 percent of children born in 1981;

Against diphtheria, tetanus, whooping cough and poliomyelitis, 50 percent of children born in 1980 and 1981;

And against tetanus, 60 percent of pregnant women in prenatal consultations.

Thus, there are plans to vaccinate 302,400 children against measles and BCG, 257,090 against DTP and polio and 467,000 elementary students against tetanus.

8568
CSO: 5400

BRIEFS

VACCINATION MINICAMPAIGNS CREDITED--Vaccination minicampaigns in areas where the problem of measles was being felt to a greater extent (particularly in the districts of Zavala, Morrumbene and Maxixe and the city of Inhambane) have substantially reduced the number of children's deaths reported in Inhambane Province. According to information gathered by our correspondent in Inhambane from the Provincial Directorate of Health, the large number of children's deaths caused by measles was due principally to a lack of participation by the people, both by the health organizations connected with preventive medicine and the basic political organizations, which had urged all mothers to take their children to the vaccination facilities which had been set up for that purpose. However, with the launching of the minicampaigns previously mentioned and as asserted by an official connected with the Department of Health of Inhambane Province, the number of children vaccinated since the start of that program increased considerably over the number vaccinated during the first half of this year. [Text] [Maputo NOTICIAS in Portuguese 23 Sep 80 p 9] 8568

CSO: 5400

TUBERCULOSIS ASSOCIATION DESCRIBES SERVICE

Kathmandu THE RISING NEPAL in English 6 Oct 80 p 4

[Text] Declaring open the first district level meeting of Nepal Tuberculosis Association at Damauli, headquarters of Tanahu district, former Assistant Minister and RP members Nara Bahadur Gurung expressed the hope that the association would succeed in making the people healthy by controlling tuberculosis in the district, reports RSS. [as published]

District panchayat president Krishna Prasad Adhikari and the chief district officer threw light on the services of Nepal Tuberculosis Association.

The meeting passed a budget of Rs. 1,93,560/- for the current fiscal year and decided to post a motivator in each village panchayat of the district to detect tuberculosis patients with a view to controlling the disease.

Speaking from the chair the newly elected president of the association, Mr. Rose Kumar Karmacharya said that tuberculosis had spread to villages because of lack of medical facilities and added that cooperation of all was necessary to eradicate the diesase from the district.

CSOP 5400

VIRAL ENCEPHALITIS REPORTED IN TERAI

Kathmandu THE RISING NEPAL in English 9 Oct 80 p 1

[Text] Viral encephalitis has been much in evidence in the Terai districts of Jhapa, Morang, Sunsari, Saptari, Bara, Parsa, Chitwan, Nawalparasi, Rupandehi and Taulihawa recently, the Nepal Malaria Eradication Organisation has stated, reports RSS.

According to hospital records, Rupandehi, Morang, Nawalparasi and Parsa districts have been the most severely hit by the viral out-break.

Pointing out that viral encephalitis can be controlled only by eradication the kulex mosquitoes which transmit it, the organisation has appealed to all to help eradicate the mosquitoes through use of insecticides and by preventing their young from hatching in stagnant pools. [as published]

Pointing out that malthian liquid, an insecticide, has been machine-sprayed since September 15 with the cooperation of local town panchayats and administration, the organisations has stated that the syraying has been going on in Rupandehi, Morang, Sunsari, Nawalparasi and Taulihawa. [as published] Teams have been sent to spray in Jhapa and Bara also.

Baby mosquitoes can be destroyed by pouring soap mixed burnt mobil, kerosene or raw oil on stangant pools and canals, it is also stated. [as published]

CSO: 5400

URGE FOR ACTIVE EFFORT TO CONTROL ENCEPHALITIS

Kathmandu THE RISING NEPAL in English 6 Oct 80 pp 1, 4

[Text] Health Minister Ramananda Prasad Yadav advised the medical experts attending a meeting today at the Health Ministry to make active effort to control viral encephalitis, reports RSS.

The disease is reported to have appeared in Lumbini and Narayani Zones.

A team headed by the chief of infectious disease section Dr. Indra Bahadur Khatri has been sent to Siddharthanagar to control the disease, it is learnt.

Meanwhile reports from Birgunj said that the epidemic of encephalitis that hit Birgunj and its neighbouring areas has been brought under control to some extent.

According to the doctor concerned of the total 38 encephalitis patients admitted to the Narayani Zonal Hospital, twelve patients left the hospital after treatment whereas twelve others died while undergoing treatment. Three other patients left the hospital after initial treatment.

The condition of eleven other patients remaining at the hospital is improving, the doctor added.

Encephalitis patients have stopped visiting the hospital since last four days.

Some of the patients also reported to Duncan Hospital of Darbhanga (India) for treatment and the death toll of such patients is learnt to have exceeded 15.

The town panchayat, students, Government officials, social workers, the Chamber of Industry and Commerce and the Malaria Eradication Association have sprayed Malathion in the affected areas to control the disease from spreading to other places.

CSO: 5400

ENCEPHALITIS DEATHS AT BUTWAL, SIDDHARTHANAGAR

Kathmandu THE RISING NEPAL in English 5 Oct 80 p 3

[Text] Siddharthanagar, Oct. 4:

Thirteen persons died at Butwal and Siddharthanagar Hospital from encephalitis between September 28 and 30, according to sources concerned, reports RSS.

This brings the death toll at these hospital to 43 so far. [as published]

The sources say there are at present 23 encephalitis patients it Butwal Zonal Hospital and 15 patients at Bhairahawa hospital.

Of them the condition of 20 is described as critical.

It is becoming increasingly difficult to accommodate encephalitis patients in the hospitals as they come for treatment almost daily.

The situation is made all the worse by the fact that at present there is no doctor at Nawalparasi district hsopital. Encephalitis patients from there are being brought to Butwal Hispital for treatment. [as published]

However, encephalitis preventive campaign has been launched here with the joint efforts of district offices concerned, town panchayats and local offices of malaria eradication organisation.

It is learnt Rupandehi district office has put a total ban on the import of pigs.

CSO: 3400

BRIEFS

ENCEPHALITIS DEATHS REPORTED--Katmandu, 28 Sep (AFP)--At least 30 out of 105 people being treated for encephalitis by the district and zonal hospitals in southwest Nepal have died, it was reported here today. Ten other people were said to be in a critical condition. Encephalities has been mainly affecting the tropical region bordering India's Uttar Pradesh and Bihar states where several hundred people died of the disease last year. The department of epidemiology said malathion was being sprayed to kill the mosquitos in the Biratnagar, Lumbini, Birgunj and Sido-Harthanager districts where the virus disease has spread. [Text] [BK041023 Hong Kong AFP in English 1352 GMT 29 Sep 80] The epidemic of encephalitis that hit (Bijam) and its neighboring areas has been brought under control to some extent. According to the doctors concerned, of the total 38 encephalitis patients admitted to the Narayani zonal hospital, left the hospital after treatment whereas 12 others died while undergoing treatment. [sentence as heard] Three other patients left the hospital after initial treatment. The condition of 11 other patients remaining at the hospital is improving, the doctor added. Encephalitis patients have stopped visiting the hospital since the last few days. [Text] [BK051533 Katmandu External Service in English 1450 GMT 5 Oct 80]

ENCEPHALITIS AT BHARATPUR HOSPITAL--Seven encephalitis patients have died so far at the hospital in Bharatpur, Chitwan, while four others have been discharged after treatment, it is learnt, reports RSS. According to the doctor, an 11-year-old girl suffering from the disease has been hospitalised while another patient has been sent to Kathmandu and a third to Tansen Hospital for treatment. The town panchayat has meanwhile started a publicity campaign to encourage cleanliness along with a clean-up campaign in the bazaar. As part of the publicity, people have been advised not to let pigs loose on the streets and to kill any stray pig. [Text] [Kathmandu THE RISING NEPAL in English 6 Oct 80 p 3]

CASES OF ENCEPHALITIS--Nepalgunj, Oct. 8. Stray cases of encephalitis have begun to appear here. The condition of a boy now undergoing treatment at the Bheri zonal Hospital is described as serious. It may be recalled that the disease had claimed twelve lives in Nepalgunj last year.--RSS [Text] [Kathmandu THE MOTHERLAND in English 9 Oct 80 p 2]

GASTROENTERITIS IN BHAKTAPUR--Bhaktapur, Oct. 4: An average of five patients visit Bhaktapur district hospital daily for treatment of gastroenteritis, reports RSS. Of the 79 patients who registered in the hospital since last month, 40 are reported to have been infected by cholera virus, according to public health section. [Text] [Kathmandu THE RISING NEPAL in English 5 Oct 80 p 3]

CSO: 5400

BRIEFS

MALARIA OUTBREAK--There has been an outbreak of malaria among New Zealand soldiers who have just returned from the Solomon Islands. Fourteen cases of malaria have occurred so far among an engineering group sent to the islands. Brigadier Brian McMahon, director general of medical services at Defence Headquarters in Wellington, said these soldiers contracted malaria even though they had been taking tablets to protect against the disease. The tablets they were taking were apparently most effective against the deadly form of the disease but not so effective against a milder form of the disease which stays in the body for a long time after infection. It was the milder type, known as plasmodium vivax, which the soldiers contracted. Dr R Campbell Begg, director of health promotion for the Health Department, said the Army had correctly followed immunisation procedures but "no drug can be 100 percent effective." However, he said this incident would prompt the department to have another look at malaria to see if there was some way to improve immunisation. [Excerpts] [Wellington THE EVENING POST in English 19 Sep 80 p 4]

INFLUENZA ABATING--There has been more influenza about this year but the worst of it is over. The Health Department director of health promotion, Dr R. Campbell-Begg, said "quite a few" frail old people had died of respiratory problems as an off-shoot of influenza. "There has been more (flu) this year than last," he said, "but since the end of August it has been on the wane." Dr Campbell-Begg said the A-Texas and A-Bangkok strains of influenza had been widespread throughout New Zealand. [Excerpt] [Auckland THE NEW ZEALAND HERALD in English 15 Sep 80 p 9]

RUBELLA CASES--There has been an increase in the number of rubella cases in New Zealand following an outbreak in the United Kingdom. Laboratory tests have showed the increase particularly in specimens from the Hawkes Bay region, Dr R Campbell Begg, director of health promotion, said. "The cases confirmed in the laboratory are only a small percentage of those occurring in the community. Indications are that the increase is more widespread," Dr Begg said. He said epidemics were not likely because so many children had already been immunised. But there were still between five and 15 percent of women in the child bearing age group who were susceptible to rubella. [Excerpts] [Wellington THE EVENING POST in English 16 Sep 80 p 12]

CSO: 5400

BRIEFS

VIRAL GRIPPE EPIDEMIC--The health authorities are greatly concerned over an outbreak of viral grippe which has been afflicting Managua and other cities for weeks. The authorities said that this year's outbreak has been more virulent and widespread than in previous years. [Managua EL NUEVO DIARIO in Spanish 5 Oct 80 p 4 PA]

CSO: 5400

MALARIA INCREASES AS KARACHI MOSQUITO CONTROL SLACKENS

Karachi DAWN in English 8 Oct 80 p 7

[Editorial: "Mosquito Menace"]

[Text] KARACHI'S mosquito population has swelled to a menacing proportion, making life miserable and sound sleep a luxury. Virtually all City areas, relatively clean ones not excluded, are now facing something of a mosquito invasion. One outcome is an alarming rise in malaria cases. The obvious reason for this continued proliferation of the malarial pests is Karachi's poor sanitation. Lyari, which is now the loose name for the entire slum complex, west of Nishtar Road, is the biggest breeding ground for mosquitoes and flies. It is a low-lying area, and the condition worsens in the aftermath of the monsoon. During a rain emergency, the Karachi Metropolitan Corporation might oblige by pumping out standing water from the low-lying areas. But, once the emergency is over, the KMC forgets all about it. As a result, big and small pools of stagnant water and the generally saline land serve as a fertile ground for the mosquito larvae.

Heaps of uncollected garbage at communal dustbins, overflowing gutters and puddles are in evidence as much in Lalukhet and Lyari as in Nazimabad and Defence Housing Society. One wonders what use the KMC has made of the twenty million rupees granted by the Federal Government for the purchase of refuse vans. The Vector control programme too appears dormant. No more does one hear of aerial sprays. Open drains and 'nullahs' which wind their way through the heart of the city are the greatest source of pests and diseases. But no attempt has been made to cover them or to spray them regularly with insecticides. There are also thick bushes for miles and miles in Gulshan-e-Iqbal that serve to increase the mosquito population.

The city's overall insanitary condition deserves to be tackled on a basis of top priority (second perhaps only to the perennial water shortage problem). What is needed is an overall plan for a sustained drive against mosquitoes and flies. The Councillors know their constituencies well and are, thus, in a position to select targets, fix priorities and draw up a plan which the Vector Control Department must carry out efficiently. The important thing is to recognise the seriousness of the problem of insanitation and chalk out a workable plan to improve Karachi's cleanliness to a minimum acceptable level. As we had said in our comment on the KMC's last budget, "the KMC is now obliged to do a better job for the simple reason that its financial health has improved to a considerable extent." What is needed is a will to do the job that has long been in need of being done.

CSO: 5400

BRIEFS

MALARIA CONTROL PLAN--Lahore, Oct 9--The Federal Government has evolved a malaria control programme spreading over three years from 1980 to 1983, costing Rs 198.23 million, including the foreign exchange component of Rs 116.45 million. The programme envisages to bring malaria mortality to zero among the infants, to keep the annual parasite incidence below 0.4 per thousand, training of technical personnel in the general health services and malaria control programme and to strengthen research to develop methods of malaria control. The research would be intensified on the indoor spray, identification of area having persistent transmission of malaria drug administration and focal spray for hilly areas of Baluchistan and Azad Kashmir, detection of malaria cases through health institutions and their treatment through health guards in the northern areas. For towns, with more than 20,000 population, the control measures would include larviciding and mechanical reduction of breeding places. Under the programme 30 per cent population would be covered with spraying insecticides every year hundred per cent population would be screened for detection of malaria cases after which the treatment of malaria cases would be carried out. [as published] --APP [Text] [Karachi MORNING NEWS in English 10 Oct 80 p 6]

GASTROENTERITIS AMONG AFGHAN REFUGEES--Quetta, Oct 7--A spokesman of the Provincial Government has clarified a news item appeared in a section of Press today regarding Gastro Entritis cases in Dalbandin Tehsil of Chagai District. [as published] According to a statement issued by the Secretary Health in Quetta this afternoon, Gastro-Entritis cases were reported from one of the Afghan Refugee camps. Till today, 54 cases of Gastro-Entritis have been reported out of which 5 deaths have occurred and the rest have been cured. Today District Health Officer, Chagai District has informed over telephone that no fresh cases of Gastro-Entritis have occurred in the District since the last four days and there are only two patients in hospital who are rapidly recovering. The Health Department has sent two Assistant Director alongwith a team of Vacciantors [as published] and adequate amount of drugs to the area including the Afghan Refugee Camps have been vaccinated against Cholera and Typhoid. The disease has been spread because of drinking of contaminated water in the area and now effective step have been taken by the Health Department for the chlorination and purification of water sources in the areas. The situation is fully under control and the disease has been contained while no fresh cases have been reported since last four days. [Text] [Quetta BALUCHISTAN TIMES in English 8 Oct 80 p 4]

CSO: 5400

BRIEFS

CHOLERA CONFIRMED--The Department of Health has confirmed in Pretoria that there are 71 cases of cholera on the eastern Transvaal Lowveld. [Excerpt] [LD200516 Johannesburg Domestic Service in English 1700 GMT 17 Oct 80]

CSO: 5400

BRIEFS

DISEASE OUTBREAK--Kibaha--Three people died the day before yesterday and another seven were admitted to Miono Health Center following a vomiting and diarrhea outbreak. With the outbreak of this disease, which has not yet been diagnosed, the coast regional party secretary, Ndugu (Muhammad Kisoki), has ordered that the village be quarantined. The picking, selling and consumption of fruit has been banned there and in all neighboring villages and buses are not allowed to carry passengers to or from the village. The coast medical officer, Ndugu Muhammad, together with a team of doctors and nurses has left for Miono in an effort to stop the spread of the disease. [Text] [LD171708 Dar es Salaam Domestic Service in Swahili 0700 GMT 17 Oct 80 EA]

CSO: 5400

BRIEFS

HEPATITIS OUTBREAK IN CATIA--A suspected outbreak of hepatitis was reported by the owners of the apartments in Torre C of the Naiguata Residences, located on Avenida Sucre in Catia. Salvador Calmauta, a reporter and an employee of Educational Television of the Ministry of Education, has indicated that his children have become ill with hepatitis. Calmauta said that the building has been lacking drinking water for 5 days, in addition to which there are sewage waters around the tower. He does not know of other cases of this illness among the residents of the remaining 108 apartments. However, for his part, he said he was having his family inoculated with gamma globulin and was taking the necessary precautions to prevent the disease from spreading. [Text] [Caracas EL NACIONAL in Spanish 2 Sep 80 p C-2] 9661

TYPHOID FEVER OUTBREAK--Los Teques, 3 Sep--There has been a typhoid fever outbreak in the Zumba district of Guarenas, according to the findings of the regional health authorities after it was learned that there were 40 cases of infected persons admitted at the local Doctor Francisco Garcia Hospital. The illness brought on by ingesting food contaminated with Eberth bacilli, was propagated among the inhabitants of the aforesaid district of Guarenas by water transported in tank trucks. Dr Raul Gomez Melis, the hospital's director, told newsmen that all labortary tests were being done and new samples were being taken, and that all they were waiting for was a decision from the Ministry of Health and Social Welfare to proceed with mass vaccination. "We have more than 4,000 vaccinations available at our center, but until we conclude the analyses and investigations," he explained, "we recommend to the citizenry that they take the precautions due in such cases, such as boiling water and cooking utensils, and adequate disposal of excrements." [Text] [Caracas EL NACIONAL in Spanish 4 Sep 80 p D-13] 9661

CSO: 5400

DOGS IN SARDINIA THREATENED BY GASTROENTERITIS

Sassari LA NUOVA SARDEGNA in Italian 20 Sep 80 p 9

[Article by S.B.: "A Terrible Epidemic Is Threatening Sardinian Dogs"]

[Text] Siniscola--After the epidemic of swine fever, which decimated entire herds of pigs, and summer fires, which caused enormous damage to the island's natural and animal resources, a new serious danger, this time from abroad, is threatening and disturbing the tranquillity of Sardinian hunters. According to certain concerned individuals in Siniscola, this is not an idle alarm but a real danger which, unless timely and precise countermeasures are taken, could in a short time deprive a great many Sardinian hunters of their four-legged worthy, faithful and irreplaceable collaborators.

In fact, after having made its appearance in the United States and Germany a few years ago, a terrible epidemic which strikes dogs, either very young or old, and is nearly always fatal, has been spreading throughout various Italian regions for several months.

The disease, which appears in the form of acute hemorrhagic gastro-enteritis, strikes down even the most resistant animals within 20 hours, and veterinarians are unable to provide remedies to check its spread. According to an article appearing in a Bolognese newspaper on 1 September, foreign scholars have succeeded in isolating the barbel virus which is the etiological agent responsible for the epidemic disease. Certain vaccines are said to have produced very good results. But in Italy, not only have studies not been made in this regard but also it is still absurdly forbidden to use these vaccines prepared abroad.

Thus, since the veterinarians are powerless to act, the epidemic has spread throughout many Italian regions, particularly Latium, Tuscany and Apulia, and more recently Emilia. In short, the danger of contagion is very serious, and even Sardinia, which up to now had been spared by this disease, is running the risk of losing many of its own dogs through infection by foreign canines when the next hunting season opens with its usual influx of hunters from the mainland. Hence, the concern of Siniscola hunters is more than justified when, with a letter sent to the chairman of the regional governing body, they request that adequate measures be taken so that, after the swine fever epidemic, Sardinia can at least avoid a canine epidemic.

8568
CSO: 5400

SWINE FEVER REPORTED IN SARDINIA

Cagliari L'UNIONE SARDA in Italian 21 Sep 80 pp 1, 2

[Article by E.F.: "Swine Fever: Another Slaughtering of Swine"]

[Text] Oristano, 20 Sep--Like an oil stain, swine fever is spreading even in the district of Oristano. A new center of infection was discovered today in Arborea in a breeding farm belonging to the Sardinian Land Reclamation Company; after proper verification, the district veterinarian ordered all 800 pigs of that pig farm to be killed and burned to avoid further spread of the disease. Thus, even in the Oristano district which, until only a week ago, had been "clean," the disease has made its appearance and is spreading like wildfire. The district veterinarian took immediate measures to disinfect the area; in addition, placards containing the words "Infected Area" and "Swine Fever Danger" were posted in suspected areas to warn breeders of the dangers swine incur if permitted to feed in those particular rural areas.

How did swine fever arrive in Oristano district? It is somewhat of a mystery with "sinister" undertones. The first center of infection was discovered at the beginning of the week in the countryside between Milis and Seneghe in Francesco Ortu's piggery. When one of the pigs died, the veterinarian was called; he discovered the presence of the terrible disease and, as a result, ordered the killing of about 10 head, that is, all of Francesco Ortu's herd. How had the dead pig been infected? A few days before, Ortu had found two dead swine near the road bordering his farms; their ears had been cut off to make it impossible to determine from which stock farm they had come. In short, these two pigs had been afflicted with swine fever. To avoid having his other swine killed, the mysterious owner had got rid of the carcasses of the two animals and had left them in the countryside near Seneghe. The contagion was immediate. The federal police are investigating the matter trying to discover from what breeding farm the infected swine came, unleashing this tragic chain of events.

The second center of infection was later ascertained in the Marrubiu countryside near the superhighway opposite the highway-construction

headquarters on the pig farm of Sandro Marras. A few days before, the breeder had purchased two sows from the Sardinian Land Reclamation Company in Arborea. It was more than logical to think that the disease could have been introduced by the two "new" animals. Therefore, the district veterinarian made the obligatory tests at the Arborea company. He found cases of swine fever and ordered all 800 head of swine at this breeding farm to be killed and burned. Even the 180 head of the Marras stock farm will have to be destroyed. Moreover, as we have said, the district veterinarian has ordered a series of disinfectant measures and a display of posters warning breeders.

Precisely because of this unforeseen outbreak of swine fever in various communes of Oristano district, meetings are being held under the direction of the district veterinarian. The objective is to inform breeders of the prevailing situation and advise them as to possible precautions to take. In addition, an attempt is being made to find ways to check the spread of this harmful disease which the Oristano district had succeeded in avoiding up to now.

8568
CSO: 5400

GRASSHOPPERS THREATEN CHAD, CAMEROON, NIGERIA

Dakar LE SOLEIL in French 17 Sep 80 p 11

[Text] Accra-According to experts of the anti-locust campaign, the civil war in Chad is hampering the efforts of the international community's attempts to wipe out the threat of the most serious invasion of grasshoppers experienced by Africa in 40 years.

This invasion, which is now affecting over 400,000 km^2 throughout Chad, Cameroon and Nigeria is threatening to spread and to have "disastrous" consequences for the agriculture of many countries of the Sahel.

The reproduction regions are located in the basin of Lake Chad. On the Chadian side of the lake,operations for the control of grasshoppers have been made impossible because of the fighting.

This is the second time in 3 years that this insect of the Orthoptera order is spreading in Africa because of armed confrontations. In 1977-78, the Somali-Ethiopian war of the Ogaden had prevented surveillance operations and preventive actions. In response to a question, the OICMA [spokesman] felt there is a risk that the migrations of grasshoppers will cause heavy losses of harvests in the states of West Africa.

Mr Alomenu said, "I think that up to now the harvests have not suffered a great deal because the locusts are to be found principally in livestock raising regions. However, we anticipate that toward the end of the year, there is a chance that the harmattan [drying wind of West Africa) will sweep the insects toward the southern part of Niger."

According to Mr Alomenu, the present situation is comparable in order of magnitude to that which prevailed 3 years ago in the Horn of Africa. However, the risks of a "worsening" [derapage] situation are great.

In June 1980, the OICMA made an appeal for help to the international community. Up to now, $800,000 have been collected. However, $2 million would be required to cover the needs of the next 6 months.

Because of the civil war in Chad, technicians of the anti-locust campaign will have to content themselves with operating in Cameroon and Nigeria.

In Chad, the infrastructure installed for the surveillance of the movement of grasshoppers was destroyed by the fighting. According to Mr Alomenu, the Armed Forces of the North (FAN) of Hissein Habre seized the office of the OCLALAV [Joint Anti-Locust and Anti-Avarian Organization], another organization of the anti-locust campaign in Ndjamena. All of the organization's vehicles have been requisitioned by Habre's men.

This new grasshopper warning comes at the very moment when almost all the governments of West Africa are stressing the agricultural sector.

For Mr Alomenu, the most crucial period is between now and December; and the anti-locust experts are going to try to spread insecticides over the greatest possible surface to reduce the threat when the harmattan begins to blow.

The insecticide spreading operations up to now for the most part have taken place in the massif of Adamaoua, in the center of Cameroon, and on the Cameroonian plateaus. In Nigeria, specially equipped helicopters have been used.

However, in spite of control operations, the affected regions cover an increasingly large area: about 400,000 km^2 today compared to 40,000 km^2 a year ago.

8143
CSO: 5400

STUDY OF MEANS FOR COMBATING PINE PROCESSIONARY CATERPILLAR

Algiers EL MOUDJAHID in French 23 Sep 80 p 2

[Article: "Towards the Development of an Operation Against Ravager Parasites"]

[Text] Algiers (aps)--Some days of study devoted to phytosanitary protection of the forest areas of the country began yesterday morning at the J'El Harrach National Agronomic Institute (Algiers).

Inaugurated by Tayeb Bouzid, secretary general of the Secretariat of State for Forests and the Valorization of Lands, these days, which will continue until 24 September 1980, group representatives of several ministries and organizations, as well as the staffs, engineers, and technicians of the forest section.

The purpose of this meeting, to which students of several institutions of higher learning and of scientific research were invited to participate, aims to promote the means of an effective fight against the ravager parasites in forests which each year cause considerable damage to large forest areas, as for example in the case of the pine processionary caterpillar.

"The organization of these days," said Bouzid, "aims to create the necessary conditions for the development of the second phase of the operation to protect the forest patrimony against ravager parasites. "The first phase consisted of implementing a comprehensive means of protection of forests against forest fires and the reduction of their consequences."

During these days, several reports will be made to the participants. They will deal with an introduction concerning Algerian forests, the causes and consequences of the attacks of ravager parasites, the geographic distribution, and an evaluation of the damage incurred.

Other reports dealing with counterattacks and the setting up of the means of supervision, the utilization of biological insecticides, their performance and their characteristics, will also be made.

The participants will also go on trips to witness various demonstrations having to do with the organization of the application of treatment at the time of the appearance of the biological cycle of the pine processionary caterpillars and will witness some demonstrations of the techniques of the application of treatment by air pulverization, land pulverization, and other methods.

The work of the study days is to lead to a plan of action and of practical organization regarding the 1980-81 struggle against the pine processionary caterpillar and the setting up of the means of supervision and warning.

8255
CSO: 4400

FRUIT FLY ERADICATION PROGRAM DISCUSSED

Santiago EL MERCURIO in Spanish 29 Aug 80 p C-12

[Text] Arica--The Agriculture and Livestock Service will provide intial information today regarding the fumigation process that will begin on 10 September in the campaign to completely eradicate the fruit fly in Region I.

This program, which is aimed at putting an end to this scourge in the only part of the country that has been recording continuous presence of these insects, will be financed with a 20 million peso fund allocated specifically for this purpose by the government.

The director of the Agricultural Protection Division of the Agriculture and Livestock Service, Orlando Morales Valencia, stressed the importance that the campaign has both for the region, which in the long run would see the elimination of the barriers that prevent the delivery of produce and fruits to the center of the country, and for the country in general, since this would serve as a basis for starting considerable trade exchanges with Asian countries in particular, and for increasing existing trade with other countries requiring strict sanitary measures, the application of which increases costs considerably and reduces the product's quality.

The campaign against the fruit fly, or Mediterranean fly, will include two aspects: in the first place all sectors affected will be fumigated, either by specially equipped airplanes, or by land using the customary method.

In the second place, in conjunction with this, more attention will be paid to the phytosanitary barriers at the borders as well as within the country itself.

"The high degree of technology attained," commented that director of the Agricultural Division, "allows us to insure highly positive results that will furthermore affect other insects harmful to the population, such as cockroaches and gnats."

The official added that the disinfectant that would be used would not cause any problems to the inhabitants.

9661
CSO: 5400

UNFAMILIAR CATERPILLAR SPECIES DESTROYS CROPS

Accra GHANAIAN TIMES in English 9 Oct 80 p 8

[Article by Sammy Kango]

[Text] LARGE masses of unfamiliar, black caterpillar, with crop destroying capability similar to that of locusts, have been reported wreaking havoc on farms in some areas in the central part of the Volta Region for the past three weeks.

According to reports, the caterpillar move in very large swarms like locust, from place to place, and attack maize and rice farms as well as other green crops, eating off all the leaves and green parts of the plants including the stalks.

The pests are said to be able to reduce acres of exuberant farms to wasteland overnight.

OPERATION

The reports named some of the farms destroyed so far among others, as several acres of rice farms in the Avatime area, the corn section of the Hohoe E. P. Secondary School farm, and a corn farm belonging to Torbe Xedsen II, chief of Ve-Wudome.

The areas of operation of the pests were named as Ghadi, Ve, Avatime, Gbi and their surrounding traditional areas.

According to Mr Adolf Ametsitsi, chief farmer of Avatime, and Mr Sam Mahunu a farmers' spokesman, they had contacted the pests control unit of the Ministry of Agriculture in the area for help, but the insecticide they applied was not effective against the creatures.

According to other farmers in the Ve Traditional Area, spraying with DDT had also been ineffective.

The farmers said the drugs only made the caterpillar drowsy for some time and they became more active and destructive after three or four days.

They have therefore called upon the Government to go to their aid to save the farms and prevent famine in the areas through mass spraying with more powerful insecticides.

According to Mr Mahunu, although individual farmers had been trying to get stronger insecticides privately for their farms these would not solve the overall problem since "the pests are just too many and scarce in a wide area."

He said unless some action was taken immediately, the short-term agricultural programme launched in the area would be defeated and "what shall we do to save our lives from hunger" he asked.

CSO: 5400

BRIEFS

FIGHT AGAINST COFFEE RUST--The Agriculture Ministry has taken over the [word indistinct] work against coffee rust. The problems being confronted by Guatemalan authorities in their efforts to fight coffee rust have forced the government to take over directly the work of controlling, researching, fighting and erradicating coffee rust in the area bordering El Salvador. Another obstacle has arisen in addition to the sociopolitical problems in El Salvador. It is the absence of the cooperation which had been specifically scheduled by some international service organizations to help fight the blight. [Text] [PA152028 Guatemala City Domestic Service in Spanish 1230 GMT 15 Oct 80]

CSO: 5400

BRIEFS

KHARIF CROP PESTS--Jaipur, Aug 4--In 14 out of 26 districts of Rajasthan kharif crop has been affected by insects (katra). Out of these, in 13 districts the disease has spread in an epidemic form. This was revealed in the State Assembly by Agriculture Minister Mrs Kamla today during question-hour. The districts affected include Sikar, Jhunjhunu, Nagaur, Jodhpur, Ajmer, Jaipur, Dausa Sirohi, Pali, Jalore and Tonk. The Minister said that the collectors of respective districts have been directed to assess the damage caused by "katra." Mr Revat Ram of the Congress-I who has moved the question alleged that Government was not taking any step to save the crop from the insects. BJP member Dan Dayal Joshi supported by members from--both sides said that the chemical being provided to prevent crop damage was ineffective. He wanted that some alternative to the available chemical should be found out. The Minister conceded that she had received complaints about the ineffectiveness of the chemical but to find an alternative would take time. [Text] [New Delhi PATRIOT in English 5 Aug 80 p 7]

CSO: 5400

BRIEFS

MILLET PARASITE OVERCOME--The terrible nocturnal insect which was ravaging millet spikes, better known by the name of "Rhyniptia reflexa," has now been overcome but not before having done a lot of damage in the Diourbel region. In a moment of panic, the farmers had swamped the regional service for the phytosanitation campaign with many demands. Agents of the SODEVA [?Agricultural Development Company] and regional agriculture inspection then went to work, helped and supported by the farmers who participated directly in the campaign. Some 110 tons of HCH powder were distributed in 13,050 powder sacks. Some 138 hand sprayers were used to spray the fields with 1,485 liters of Thumult 35. Attacked on all fronts simultaneously, the insect was overcome, being unable to benefit from the abundant rains which for a little over a decade have been in abeyance. In the fields, the spikes are continuing to sprout; and the farmers are realizing that in Ndumeau even the affected spikes are covered with pollen. Up to now, therefore, nothing has been lost; and, with hope restored, a number of farmers have voiced their thanks to those who fought effectively at their sides and in the process have expressed their appreciation for the courage and self-denial of the agents of the SODEVA and the regional agricultural service who worked around the clock during the battle against the Rhyniptia. [Text] [Dakar LE SOLEIL in French 27-28 Sep 80 p 6] 8143

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